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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/560,212	12/09/2005	Rudolfus Antonious Van Benthem	21580USWO (C038435/019415)	2957
7590 Stephen M Haracz Bryan Cave 1290 Avenue of the Americas New York, NY 10104			EXAMINER FREEMAN, JOHN D	
			ART UNIT 1794	PAPER NUMBER
			MAIL DATE 05/29/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/560,212	<b>Applicant(s)</b> VAN BENTHEM, RUDOLFUS ANTONIOUS	
	<b>Examiner</b> John Freeman	<b>Art Unit</b> 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 11 February 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>2/08</u> . | 6) <input type="checkbox"/> Other: _____  |

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**DETAILED ACTION*****Double Patenting***

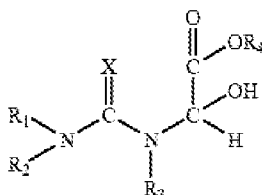
1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

2. A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

3. Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 6-13 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-5 of U.S. Patent No. 7,199,209 in view of Matson (US 3,516,941).

5. In U.S. Patent No. 7,199,209 Van Benthem et al. claim the following compound:



where X is NR<sub>5</sub>;

R<sub>4</sub> is a C<sub>1</sub>- C<sub>12</sub> alkyl group, aryl group, aralkyl group, or cycloalkyl group;

R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, R<sub>5</sub> are equal to an H, alkyl, cycloalkyl, aryl or heterocyclic group; and

R<sub>1</sub>, R<sub>2</sub>, and R<sub>5</sub> or R<sub>1</sub>, R<sub>2</sub>, and R<sub>3</sub> may together form a heterocyclic group.

6. The claims in US 7,199,209 are directed toward the same compound as found in Application No. 10/560212. However, Patent No. 7,199,209 is silent with regards to encapsulated materials comprising the compound.

7. Matson discloses a process for forming capsules from urea-formaldehyde polymers (Abstract).

The process involves (claim 1):

- 1) providing an aqueous solution of the aminoaldehyde precodensate,
- 2) adding fill material to said solution,

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3) dispersing the fill material in said solution,

4) polymerizing the precodensate.

8. The examiner notes Matson is silent with regard to the use of an exogenous deposition promoter, which would be excluded under the present claims.

9. Given the homologous nature of the compounds described by US 7,199,209 and Matson, one of ordinary skill in the art would have a reasonable expectation of success in applying the process of Matson with the compound described by US 7,199,209. At the time of the invention, it would have been obvious to one of ordinary skill in the art to make capsules from the compound described by US 7,199,209 to create capsules free of aldehyde (col 1 ln 25-40).

10. Regarding claims 9-13:

11. Given that all of the claimed core materials are well-known in the art, at the time of the invention, it would have been obvious to one of ordinary skill in the art to use any of said core materials with the capsules provided by 7,199,209 in view of Matson depending on the end use of the capsule.

Claims 6-13 are directed to an invention not patentably distinct from claims 1-5 of commonly assigned US 7,199,209. Specifically, although the conflicting claims are not identical they are not patentably distinct for the reasons set forth above.

The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP Chapter 2300). Commonly assigned 7,199,209, discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can, under 35 U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting inventions were commonly owned at the time the invention in this application was made, or name the prior inventor of the conflicting subject matter.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the commonly assigned case as a

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reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications pending on or after December 10, 2004.

Claims 6-13 are rejected under 35 U.S.C. 103(a) as being obvious over US 7,199,209 in view of Matson (US 3,516,941).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(I)(1) and § 706.02(I)(2). For an explanation of the rejection, please see above.

### ***Claim Rejections - 35 USC § 103***

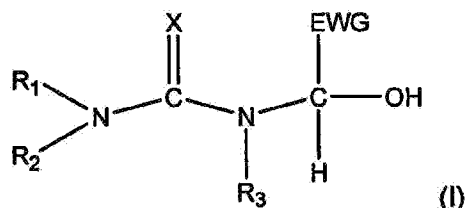
12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 1-2, 4, 6, and 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over North (US 4,285,690) in view of Matson (US 3,516,941).

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14. Applicant claims a process for making capsules wherein the wall material comprises a resin made from a compound according to the following formula:



where X is O or NR<sub>5</sub>;

EWG is an electron-withdrawing group;

R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, R<sub>5</sub> are equal to an H, alkyl, cycloalkyl, aryl or heterocyclic group; and

R<sub>1</sub>, R<sub>2</sub>, and R<sub>5</sub> or R<sub>1</sub>, R<sub>2</sub>, and R<sub>3</sub> may together form a heterocyclic group.

15. The process involves dissolving the above compound in a solvent, dispersing a core material into the formed solution, covering the core material with the resin, and optionally hardening and/or recovering the capsules. Applicant also claims the resultant encapsulated material and various potential embodiments.

16. The examiner interprets the phrase “R<sub>1</sub>, R<sub>2</sub>, and R<sub>3</sub> may together form a heterocyclic group” to include the case where R<sub>2</sub> and R<sub>3</sub> may be constituents of the heterocyclic ring itself, while R<sub>1</sub> is an N-substitution of the heterocyclic group. Even though R<sub>1</sub> is not contained within the ring, it is still part of the heterocyclic group. The case where R<sub>1</sub> and R<sub>2</sub> compose a double bond in the heterocyclic ring is another considered interpretation.

17. North discloses a product resulting from the reaction between a cyclic urea and glyoxal (col. 1 ln. 59-62). The resulting product is thus a subset of the general compound described by Applicant since glyoxal is an aldehyde that follows Applicant’s formula (II) (p3). North also discloses that the product is water soluble; he uses an aqueous solution of the product in at least one example (col. 5 ln. 25).

18. While North directs his invention to the field of wrinkle-resistant fabric, he recognizes a multitude of different fields of endeavor to which one could apply the product (col. 3 ln. 37+), including film-forming resins for coatings (col. 3 ln. 50). The word “coatings” is interpreted as an analogous term for “resins”.

19. North is silent with respect to encapsulated material and a process for forming capsules.

20. Matson discloses a process for forming capsules from urea-formaldehyde polymers (Abstract).

The process involves (claim 1):

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- 1) providing an aqueous solution of the aminoaldehyde precodensate,
- 2) adding fill material to said solution,
- 3) dispersing the fill material in said solution,
- 4) polymerizing the precodensate.

21. The examiner notes Matson is silent with regard to the use of an exogenous deposition promoter, which would be excluded under the present claims.

22. Given the homologous nature of the compounds described by North and Matson, one of ordinary skill in the art would have a reasonable expectation of success in applying the process of Matson with the compound described by North. At the time of the invention, it would have been obvious to one of ordinary skill in the art to make capsules from the compound described by North to create capsules with no free aldehyde (col 1 ln 28-35).

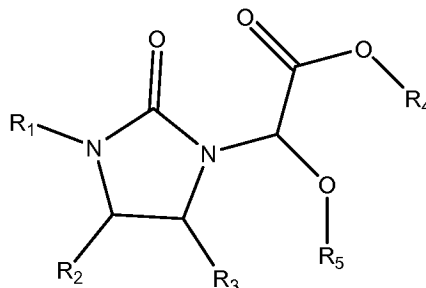
23. Regarding claims 9-13:

24. Given that all of the claimed core materials are well-known in the art, at the time of the invention, it would have been obvious to one of ordinary skill in the art to use any of said core materials with the capsules provided by North in view of Matson depending on the end use of the capsule.

25. Claims 1-6 and 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Skoultchi et al. (4,770,668) in view of North (4,285,690) and Matson (US 3,516,941).

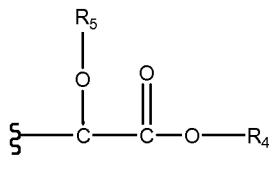
26. Applicant's claims are previously described.

27. Skoultchi et al. (hereafter Skoultchi) disclose the production of the following compound for use as a permanent press, or wrinkle-resistant, fabric agent (col. 2 ln. 12+):

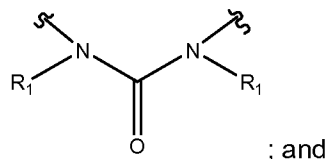


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where R1 is alkyl or the following



R2 and R3 are OH, H, or combine to form



R4 and R5 are alkyl, hydroxyalkyl, or H.

28. The compound according to Skoultchi wherein R1 is an alkyl, and R5 is an H, is one that falls under Applicant's claim. Skoultchi disclose that the invention is water soluble, as evidenced by the preferred embodiment of an 8% aqueous treatment solution of the compounds (col. 5 ln. 65).

29. Skoultchi is silent with regards to using their invention toward coatings.

30. In view of North's disclosure, at the time of the invention, it would have been obvious to one of ordinary skill in the art to apply the invention of Skoultchi toward film-forming coatings. Both teach a method of making cyclic-urea compounds for use as a treatment for wrinkle-resistance in clothing. One in the art would search this class of compounds, recognize the homologous structures of both references, and therefore reasonably expect for the compounds to behave similarly in various reactions. Specifically, as North teaches that the compounds of his invention can produce film-forming resins for coatings (col. 3 ln. 50), one of ordinary skill in the art would reasonably expect the compounds of Skoultchi to be a suitable substrate for the production of film-forming resins.

31. Skoultchi and North are silent with regard to encapsulated material and a process for forming capsules.

32. Matson discloses a process for forming capsules from urea-formaldehyde polymers (Abstract).

The process involves (claim 1):

- 1) providing an aqueous solution of the aminoaldehyde precodensate,
- 2) adding fill material to said solution,



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3) dispersing the fill material in said solution,

4) polymerizing the precodensate.

33. The examiner notes Matson is silent with regard to the use of an exogenous deposition promoter, which would be excluded under the present claims.

34. Given that North teaches compounds can be used for coatings, one of ordinary skill would recognize that Skoultchi's compounds, which are homologous to North's compounds, would be useful as coatings as well. As such, one of ordinary skill in the art would recognize that such condensates could be used as starting material for the process of making aminoaldehyde-based capsules as described by Matson and thereby avoid the use of toxic formaldehyde in capsules (Skoultchi col 1 ln 64-68).

35. Regarding claim 5:

36. Skoultchi teaches the use of a ratio of amino group to hemiacetal of 1, falling within Applicant's range (col 3 ln 56-59).

37. Regarding claims 9-13:

38. Given that all of the claimed core materials are well-known in the art, at the time of the invention, it would have been obvious to one of ordinary skill in the art to use any of said core materials with the capsules provided by Skoultchi in view of North and Matson depending on the end use of the capsule.

#### ***Claim Rejections - 35 USC § 112***

39. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

40. Claims 1-13 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

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41. Claims have been amended to add the limitations of deposition “without adding an exogenous deposition primer” or “free from an exogenous deposition primer”. The cited phraseology clearly signifies a “negative” or “exclusionary” limitation for which the applicants have no support in the original disclosure. Negative limitations in a claim which do not appear in the specification as filed introduce new concepts and violate the description requirement of 35 USC 112, first paragraph, *Ex Parte Grasselli, Suresh, and Miller*, 231 USPQ 393, 394 (Bd. Pat. App. and Inter. 1983); 783 F. 2d 453.

42. The insertion of the above phraseology as described above positively excludes adding an exogenous deposition primer, however, there is no support in the present specification for such exclusions. While the present specification is silent with respect to the use of an exogenous deposition promoter, is noted that as stated in MPEP 2173.05(i), the “mere absence of a positive recitation is not the basis for an exclusion.”

### ***Response to Arguments***

43. Applicant's arguments with respect to claims 1-13 have been considered but are moot in view of the new ground(s) of rejection.

44. Applicant asserts that North is “not related to the present invention” because “North is concerned with the crosslinking of textile fabrics” (p26). In fact, North states

“[a]lthough this invention will be described with the use of the [product] as a textile finishing agent in this application...it is not intended to be limited thereto. It is also suitable for use as...a binder in...shell moldings...film-forming resin in coatings...and the like” (col 3 ln 37-54).

45. Therefore, North clearly does not intend to limit his invention to the field of textiles, and specifically provides motivation for its use in arts that employ coatings of aminoaldehyde condensates. As such, one of ordinary skill in the art would recognize that such condensates could be used as starting material for the process of making aminoaldehyde-based capsules as described by Matson.

46. Applicant asserts that “Skoultchi is even further removed from the claims of the present application than is North” and that the “Examiner provides no basis for one to consider the compounds as

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a suitable substitute for film-forming resins" (p30). The examiner notes the molecules taught by Skoultchi and North belong to the same class, i.e. they are homologous. Therefore, one of ordinary skill in the art would have a reasonable expectation that they would behave similarly. Given that North teaches compounds can be used for coatings, one of ordinary skill would recognize that Skoultchi's compounds, which are homologous to North's compounds, would be useful as coatings as well. As such, one of ordinary skill in the art would recognize that such condensates could be used as starting material for the process of making aminoaldehyde-based capsules as described by Matson.

47. Applicant argues that the examiner's statement in the previous office action that R1 of Skoultchi can be H is in error (p29). The examiner agrees, and notes that paragraph 30 above now correctly states R1 as an alkyl.

### ***Conclusion***

48. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Freeman whose telephone number is (571)270-3469. The examiner can normally be reached on Monday-Friday 7:30-5:00PM EST (First Friday off).

49. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on (571)272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

50. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative

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or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

John Freeman  
Examiner  
Art Unit 1794

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/Callie E. Shosho/  
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